

A Comparison of the Health and Mental Health Status of Homeless Mothers in Worcester, Mass: 1993 and 2003

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The homeless population in the United States comprises a growing number of families, and these families are headed primarily by single mothers. Estimates suggest that each year 420 000 families are homeless, placing more than 900 000 children at risk of compromised developmental and behavioral outcomes.¹ Moreover, homelessness is not an uncommon occurrence among poor families, with as many as 8% of such families experiencing homelessness during a given year.^{1,2} Studies of homeless families conducted during the early and mid-1990s reported high rates of domestic violence, physical health limitations, and psychiatric and substance abuse disorders.^{3–5} Such findings have implications for shelter programs and provider practices throughout the country.

There have been few opportunities to compare the characteristics of homeless mothers over time. Increases in rates of mood and substance abuse disorders were found in a recent study examining changes in psychiatric illness among single homeless adults over a 20-year period.⁶ Methodological limitations across studies, including different definitions of homelessness and sampling, measurement, and geographic variations, have made comparative studies difficult. Hence, little is known about how the characteristics and needs of homeless families have changed in recent years. Understanding the evolving needs of homeless families is critical if effective policies and services are to be developed.

We took advantage of an unusual opportunity to compare background characteristics, health status, and rates of mental health disorders and substance abuse among mothers taking part in 2 studies of homeless families conducted in Worcester, Mass, one in 1993 and the other in 2003. Although these studies enrolled different participants, their methodologies were sufficiently similar to enable meaningful comparisons over time on key demographic and health variables.

Objectives. We assessed background characteristics, health status, and prevalence rates of mental health disorders in 2 studies of homeless mothers conducted in Worcester, Mass, one in 1993 and the other in 2003.

Methods. We compared the women taking part in the 2 studies, which involved similar methodologies, on the key variables of interest over time.

Results. Homeless families taking part in the 2003 study were poorer than those taking part in the 1993 study, and female heads of household in that study reported more physical health limitations, major depressive illness, and posttraumatic stress disorder.

Conclusion. Data from 2003 suggest that the characteristics of homeless mothers changed over the 10-year period assessed. Service providers and shelter staff may need to refine services so that they are responsive to these changing needs. (*Am J Public Health.* 2006;96:1444–1448. doi:10.2105/AJPH.2005.069310)

METHODS

Sample

The Worcester Family Research Project (“1993 study”) was a longitudinal epidemiological investigation of homeless families and low-income families that had never been homeless.^{4,7} Two major aims of the study were to examine risk and protective factors associated with family homelessness and to assess the characteristics and needs of homeless and low-income housed families. The definition of families used in the study was single-parent, female-headed households and their dependent children; such families represent approximately 95% of the homeless family population in Massachusetts. Two hundred twenty sheltered homeless families enrolled from 9 family shelters in Worcester were compared with 216 low-income families that had never been homeless and were receiving Aid to Families with Dependent Children. Participants were interviewed at the time of their enrollment in the study, as well as 12 and 24 months later. Baseline interviews were conducted from 1992 to 1994.

The Worcester Homeless Families Program Study (“2003 study”) was undertaken to evaluate the effectiveness of a comprehensive, multimodal program conducted at a local, federally funded community health center

that serves homeless families. This investigation was part of a broader federal initiative to identify model programs addressing the needs of homeless women with children. The study enrolled 203 mothers, 148 of whom were living in a shelter at the time they were interviewed and 55 of whom were living with relatives or friends. Those who were living with relatives or friends were not included in the present analyses so that the sheltered homeless mothers from the 2 studies (220 in the 1993 study and 148 in the 2003 study) could be compared (the 216 housed families from the 1993 study were also not included in the present analyses).

The 2 studies’ eligibility criteria and enrollment procedures were similar, particularly in the case of the subsets of homeless mothers compared here. In both studies, female heads of household 18 years or older were enrolled from each of the existing family shelters in Worcester, a midsized city in central Massachusetts and the third largest in New England (2003 population: 172 000). A significant percentage of the city’s residents are Hispanic. The 1993 and 2003 study samples reflected the percentages of Worcester’s Hispanic residents who were living below the poverty level (30% and 38%, respectively).^{8,9}

There was 1 noteworthy difference in the studies’ eligibility criteria and enrollment

procedures: In the 2003 study, in addition to the criteria just mentioned, eligibility was predicated on women having had an alcohol, drug, or mental health disorder in the past year as assessed via the Mini International Neuropsychiatric Interview (MINI).¹⁰ All of the women screened met this criterion. The 1993 study, because it was epidemiological in nature, did not impose such a requirement, and all homeless mothers who agreed to participate were interviewed. During the 2003 study's enrollment process, shelter staff were informed that the target population was single mothers with 1 or more children, but they were not informed of the mental health/substance use disorder criterion. Thus, no potential study participants were screened out as a result of initial shelter staff perceptions, allowing women to be subsequently screened into the study on the basis of objective diagnostic criteria.

Measures

Similar questions about age, race/ethnicity, marital status, number and age of children, income, and educational level were asked of mothers in the 2 studies. Childhood foster care experiences and childhood sexual abuse were assessed with Conflict Tactics Scale¹¹ items in the 1993 study and via similar but differently worded items in the 2003 study. Questions focusing on chronic health conditions were drawn from the National Health Interview Survey¹² and were similar in the 2 studies.

Diagnostic assessments of mothers' mental health were used in both studies. In the 1993 study, assessments were made with the Structured Clinical Interview for the DSM-III-R (non-patient edition; SCID)¹³; in the 2003 study, assessments were made with the MINI,¹⁰ which employs the diagnostic criteria of the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV).¹⁴ The MINI has been validated against the SCID.¹⁰ Both instruments are widely used in psychiatric epidemiology research, and each has good interrater reliability. The diagnostic criteria of the DSM-III and DSM-IV were equivalent in the case of the psychiatric disorders assessed here.

In both investigations, the Global Severity Index (GSI) of the Brief Symptom Inventory¹⁵ was used to assess psychiatric symptom

severity, with higher values indicative of more psychiatric distress. The Brief Symptom Inventory has strong internal consistency and good test-retest reliability.¹⁵ In the present study, the α coefficient for the GSI was 0.97.

Health status and physical functioning were assessed with the SF-36 Health Survey (SF-36)¹⁶ in the 1993 study and with the SF-8 Health Survey (SF-8)¹⁷ in the 2003 study. Both instruments yield an 8-scale profile of functional health and well-being, the SF-8 using a single question to measure each of the 8 SF-36 domains. Higher scores on these instruments represent better health status or physical functioning. Both surveys have demonstrated good reliability and validity.^{16,17} SF-36 subscale scores were standardized (via z scores) and converted to norm-based scores to allow for comparison with SF-8 scores.

In the 1993 study, abuse of and dependence on alcohol and other drugs were assessed with the SCID. In the 2003 study, the MINI was used in assessing substance abuse and dependence. However, the time frames used in making these assessments were not identical: Lifetime and current (i.e., past month) prevalence rates were calculated in the 1993 study, and 12-month (i.e., past year) rates were calculated in the 2003 study.

Procedures

In 1993 as well as 2003, mothers were interviewed shortly after enrollment by trained female research interviewers, several of whom worked on both studies. In each study, interviews and instruments were translated into Spanish and administered in Spanish by bilingual interviewers to about 20% of the respondents. Finally, the study procedures were described to participants, and consent was obtained.

Data Analysis

We used t tests (for continuous variables) and χ^2 tests (for discrete variables) in conducting comparative analyses of the 2 studies' data. Two-tailed tests of statistical significance are reported here.

RESULTS

As can be seen in Table 1, homeless mothers in the 2003 study were older than mothers in

the 1993 study by an average of about 2.5 years, and consequently they had slightly older children. The 2 groups of women were similar in terms of race/ethnicity, marital status, and mean number of children. Their annual incomes placed the vast majority of families in both studies below the poverty threshold. Although average total incomes were equivalent in the 2 studies, families in the 2003 study were poorer when the effects of inflation on spending power over the decade between the studies were taken into account. Women in the 2003 study were more likely to have had at least a high-school education.

More women in the 2003 study than in the 1993 study had been in foster care, although the difference was not statistically significant. Rates of childhood physical abuse were assessed in both studies but are not reported here because of differences in measurement methods. Rates of childhood sexual abuse were high in both samples, but differences in assessment, although modest, made it difficult to characterize one group of women as having experienced more sexual abuse than the other.

Overall, women in the 2003 study appeared to be suffering from more acute as well as chronic mental health problems, as evidenced through a psychiatric distress symptom measure as well as diagnostic assessments of major depression and posttraumatic stress disorder (Table 2). Moderate percentages of mothers in both studies met diagnostic criteria for abuse of alcohol or other drugs, although the 2 studies' varying substance abuse assessment time frames made it difficult to directly compare rates.

If women in the 2003 study were receiving fewer mental health services than women in the 1993 study, this could have partially accounted for the higher rates of mental health problems observed among these women (Table 2). To assess this possibility, we examined responses to a service use item (the only truly comparable between-studies measure of mental health service use) asking respondents whether they had undergone mental health counseling or therapy in the 3 months before being interviewed. Respondents in the 1993 study who had a current mental health diagnosis were compared with the 2003 participants on this

TABLE 1—Characteristics of Homeless Sheltered Women: Worcester, Mass, 1993 and 2003

	1993 (n = 220)	2003 (n = 148)	P
Mean age, y (SD)	26.1 (7.2)	28.9 (7.1)	.0003
Race/ethnicity, %			.592
African American	22.7	22.1	
Non-Hispanic White	32.7	34.9	
Hispanic	43.2	35.6	
Other	1.4	7.4	
Marital status, %			.219
Never married	68.5	66.2	
Married	6.4	11.5	
Separated/divorced/widowed	25.1	22.3	
Mean no. children (SD)	2.2 (1.5)	2.5 (1.5)	.172
Mean child age, y (SD)	4.4 (3.0)	6.3 (4.9)	.0004
Mean income in past 30 days, \$ (SD)	714 (246)	696 (359)	.683
Annual income is below poverty level, %	80.9 ^a	90.6 ^b	.015
Education, %			.042
Some high school or less	46.4	44.3	
High school or equivalent	43.6	36.2	
Vocational training/college or more	10.0	19.5	
Ever in foster care, %	19.6	26.2	.150
Ever sexually abused, %	43.1	40.9	.773
No. of health conditions endorsed, ^c %			.135
0	36.8	34.2	
1	35.9	30.9	
2	16.4	26.2	
3 or more	10.9	8.7	

^a1992 poverty threshold for a 3-person household (2 children younger than 18 years) was used (\$11 304).

^b2001 poverty threshold for a 3-person household (2 children younger than 18 years) was used (\$14 269).

^cConditions included high blood pressure, asthma, chronic bronchitis, urinary tract/kidney infection, hepatitis, AIDS/HIV infection, sexually transmitted disease, pelvic infection, anemia, ulcer, obesity, and abnormal Papanicolaou test result.

of major depression, posttraumatic stress disorder, and substance use prevalence rates as well as GSI scores. Similarly, the study variable was a statistically significant predictor (at a corrected significance level of at least $P < .05$) of scores on the SF general health, social functioning, and mental health subscales. These findings suggest that the differences between participants in the 2 studies reported in Table 2 were not due simply to imbalances in background characteristics between the studies.

DISCUSSION

The present data suggest that the characteristics of homeless families changed over the decade assessed: Homeless families were poorer and female heads of household reported more physical health limitations, emotional distress, and mental health disorders in 2003 than in 1993. Of particular note were the considerably higher rates of current major depressive illness and posttraumatic stress disorder in the more recent study.^{3,4} Although rates of sexual abuse were somewhat lower in 2003, overall rates were still high and, in all likelihood, contributed to the high rates of emotional disorders and distress observed.

The most surprising finding was the 4-fold increase in current depression rates between 1993 and 2003. Although different diagnostic assessment instruments were used in the 2 studies, it is unlikely that the studies' small methodological differences could have accounted for a magnitude of increase this large. In fact, one methodological difference, the slightly narrower assessment time frame in the 2003 study, made it less likely that high rates would be revealed in that study. In addition, although the 2003 study added alcohol, drug, and mental disorder eligibility criteria, these criteria did not result in exclusion of any potential study participants (only 1 woman recruited for the 2003 study was not eligible for enrollment, as a result of her dual-parent status). Interestingly, a recent report from Great Britain showed that one half of homeless parents reported feeling depressed, a finding consistent with ours.¹⁹

It is noteworthy that we compared 2 studies involving similar methodologies but different participants. Hence, what we have

item. Of the 220 participants in the 1993 study, 85 met the criteria for a current mental health disorder. About 50% of these women reported having received mental health counseling or therapy in the 3 months before being interviewed, compared with 37% in the 2003 study.

Despite equivalent rates of reported chronic health conditions in the 2 studies, women taking part in the 2003 study reported significantly poorer overall health status and more limitations in physical functioning than did women taking part in the 1993 study. These women also reported more limitations in social functioning resulting from physical or emotional health problems.

It is possible that the differences between the 2 studies in the findings reported in

Table 2 were because of differences in the background characteristics of the participants (Table 1). As a means of examining this possibility, we used generalized linear models to predict each variable shown in Table 2 as a function of the participant's age, educational level, income (i.e., whether the family's annual income was below the poverty level), number of health conditions, and a dichotomous study (1993 vs 2003) variable. We elected to adjust for this subset of characteristics because they showed substantial differences between the 2 studies. We used a modified Bonferroni procedure¹⁸ to correct the adjusted P values generated from these models for multiple comparisons.

Results showed that the 1993 versus 2003 study variable was a significant predictor (at a corrected significance level of at least $P < .05$)

TABLE 2—Mental Health, Substance Use, and Health Characteristics of Sheltered Homeless Women: Worcester, Mass, 1993 and 2003

	1993 (n = 220)	2003 (n = 148)	P	Adjusted P ^a
Current major depressive episode, % ^b	9.6	52.4	<.0001	.0001***
History of major depressive episodes, % ^c	45.0	85.0	<.0001	.0001**
Current posttraumatic stress disorder, % ^d	17.5	42.5	<.0001	.0001**
History of posttraumatic stress disorder, % ^c	36.2	56.3	<.0001	.0005**
History of alcohol/drug abuse or dependence, % ^c	41.1	28.4	.010	.003*
Mean Global Severity Index score (SD) ^e	0.88 (0.71)	1.07 (0.78)	.016	.018*
Mean SF subscale score (SD) ^f				
General health	48.7 (10.8)	45.0 (8.3)	.0005	.019*
Physical functioning	48.8 (9.8)	46.6 (8.6)	.028	.178
Role limitations because of physical health	47.2 (11.3)	47.3 (8.6)	.929	.431
Bodily pain	48.1 (12.3)	47.1 (10.8)	.420	.896
Vitality	46.7 (10.0)	46.8 (9.3)	.968	.638
Social functioning	45.9 (10.6)	42.8 (10.2)	.006	.028*
Mental health	41.6 (12.0)	37.1 (10.9)	.0003	.001**
Role limitations because of emotional problems	44.3 (13.2)	42.1 (9.2)	.072	.244

^aAdjusted for age, annual income below poverty threshold, educational level, ever in foster care, and number of health conditions.

^bPast month in 1993 study, past 2 weeks in 2003 study.

^cLifetime in 1993 study, past year in 2003 study.

^dPast month in both studies.

^eHigher values indicate more psychiatric distress.

^fThe subscale scores reported for the 1993 study were derived from the SF-36. Those reported for the 2003 study were derived from the SF-8. Lower scores indicate poorer status/functioning.

* $P < .05$; ** $P < .02$; *** $P < .005$ (after modified Bonferroni correction).

described here are not changes over time within individuals but differences between study groups. Alternative explanations can be offered for the differences we observed among homeless mothers taking part in the 2 studies. On the one hand, shifts in social and economic policies may have contributed to the worsening picture we detected. During the 10-year period between studies, cuts in welfare, decreases in affordable housing stocks, and a freeze in the federal housing rental subsidy program were among the adverse circumstances that probably increased the burden experienced by many poor female-headed families.²⁰ Poverty, which often accompanies a range of psychosocial stressors, is a significant risk factor for depression among women, especially those with young children.^{21–24}

On the other hand, it is conceivable that, as a consequence of changing eligibility rules over time, shelters may have tended to attract families with higher illness burdens than in the past. Moreover, our data suggest that ac-

cess to mental health care services in 2003 may have been reduced relative to 10 years earlier, which could also partially explain the higher rates of mental health problems observed in the 2003 study. However, regardless of the reason, it appears that shelters may now be dealing with mothers with more mental health problems than in the 1990s.

No changes in numbers of reported chronic health conditions were observed between homeless mothers in the 2 studies, but those taking part in the 2003 study reported poorer health overall and more limitations in physical functioning than those taking part in the 1993 study. Similar to their effects on mental health, low socioeconomic status and its related stressors are associated with higher levels of physical health burden.^{25,26} In addition, the literature has provided extensive descriptions of the short- and long-term physical health sequelae resulting from interpersonal violence.^{27,28} Because severity of health conditions was not assessed in either study, we were not able to determine whether the

apparent decline in overall health status and functioning was attributable to more severe illness or other factors.

Notably, both the 1993 and 2003 studies comprised large percentages of Hispanics, the majority of whom were Puerto Rican. It has been shown that, among subgroups of Hispanic women, Puerto Rican women are the most likely to head families, and more than half of these families live well below the poverty level.²⁹ Also, previous research has reported high levels of social isolation, stress, and emotional health disorders, particularly depression, among Puerto Rican women.^{29,30} Responsive programs must adapt their approaches to facilitate access to appropriate services and to address the unique socioeconomic and cultural challenges faced by this subgroup of homeless mothers.

Findings from both studies indicate that the mental health burdens experienced by these homeless mothers were considerable, especially in the more recent investigation. The high rate of depression observed in the 2003 study is particularly troubling. Our results suggest that service providers and shelter staff may need to refine services so that they are responsive to the changing needs of homeless populations. For example, past research has shown that homeless mothers with depression are unlikely to receive mental health services.³¹ The debilitating effects of untreated depression have been well documented,³² and the effects of maternal depression on children's development and well-being are well understood.^{33,34} Ensuring that mental health services are available and accessible to homeless mothers is a critical priority in efforts to respond to the needs of this population. Targeting the delivery of such services to homeless mothers in need rather than indiscriminately to all homeless mothers, as commonly occurs, would improve current service system responses.³⁵

Our results must be interpreted in the context of several limitations. For example, the instruments used in the 2 studies to assess mental health disorders were not identical, although they relied on similar diagnostic criteria. Evidence of higher levels of emotional distress and mental health limitations in the 2003 study than in the 1993 study, however, was consistent across several measures.

Furthermore, the significant increases observed in rates of depression replicated the results of other studies of homeless populations.⁶

Finally, it is unclear to what extent these results are generalizable outside of central Massachusetts. Despite cautions in comparing the 2 studies, the population characteristics of homeless families in Worcester are similar to those in many cities across the country,^{36–38} and our findings may be indicative of broader changes between 1993 and 2003 in the needs of homeless families. The present results warrant further investigation in other regions of the country. Replication of these results would have important implications for policymakers and service providers addressing the physical and mental health needs of homeless families in the years ahead, and services should be refined to ensure that they are responsive to the evolving needs of these families. ■

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The Worcester Family Research Project and the Worcester Homeless Families Program Study were approved by the University of Massachusetts Medical School's Human Studies Committee. Participants in both studies provided informed consent.

References

- Burt M. Homeless families, singles, and others: findings from the 1996 National Survey of Homeless Assistance Providers and Clients. *Housing Policy Debate*. 1996;12:737–780.
- Metraux S, Culhane DP, Raphael S, et al. Assessing homeless population size through the use of emergency and transitional shelter services in 1998: results from the analysis of administrative data in nine US jurisdictions. *Public Health Rep*. 2001;116:344–352.
- Bassuk EL, Buckner JC, Perloff JN, Bassuk SS. Prevalence of mental health and substance use disorders among homeless and low-income housed mothers. *Am J Psychiatry*. 1998;155:1561–1564.
- Bassuk EL, Weinreb LF, Buckner JC, Browne A, Salomon A, Bassuk SS. The characteristics and needs of sheltered homeless and low-income housed mothers. *JAMA*. 1996;276:640–646.
- Weitzman B, Knickman J, Shinn M. Predictors of shelter use among low income families: psychiatric history, substance abuse, and victimization. *Am J Public Health*. 1992;82:1547–1550.
- North CS, Eyrych KM, Pollio DE, Spitznagel EL. Are rates of psychiatric disorders in the homeless population changing? *Am J Public Health*. 2004;94:103–108.
- Bassuk EL, Buckner JC, Weinreb LF, et al. Homelessness in female-headed families: childhood and adult risk and protective factors. *Am J Public Health*. 1997;87:241–248.
- 1990 Census of Population: Metropolitan Areas. Washington, DC: US Bureau of the Census; 1990.
- Massachusetts Dept of Public Health. Massachusetts community health information profile using census 2000: income/poverty for Worcester. Available at: http://virtualgateway01.ehs.state.ma.us/MassCHIP/instant_topics.jsp?geo=348&rep=307. Accessed March 29, 2005.
- Sheehan DV, Lecrubier Y, Harnett-Sheehan K, et al. The Mini International Neuropsychiatric Interview (MINI): the development and validation of a structured diagnostic psychiatric interview. *J Clin Psychiatry*. 1998;59(suppl 20):22–33.
- Staus MA. Measuring intrafamily conflict and violence: the Conflict Tactics Scales. *J Marriage Fam*. 1979;14:75–88.
- National Health and Nutrition Examination Survey II (1978–81). Hyattsville, Md: US Dept of Health and Human Services; 1983.
- Spitzer RL, Williams JBW, Gibbon M, First MB. *Structured Clinical Interview for DSM-III-R, Non-Patient Edition*. Washington, DC: American Psychiatric Press; 1990.
- Diagnostic and Statistical Manual of Mental Disorders. 4th ed. Washington, DC: American Psychiatric Association; 1994.
- Derogatis LR. *Symptom Checklist 90-R: Administration, Scoring, and Procedures Manual*. Minneapolis, Minn: National Computer Systems; 1994.
- Ware JE, Snow KK, Kosinski M, Gandek B. *SF-36 Health Survey: Manual and Interpretation Guide*. Boston, Mass: Health Institute; 1993.
- Ware JE, Kosinski M, Dewey JE, Gandek B. *How to Score and Interpret Single-Item Health Status Measures: A Manual for Users of the SF-8 Health Survey*. Lincoln, RI: QualityMetric Inc; 2001.
- Simes P. An improved Bonferroni procedure for multiple tests of significance. *Biometrika*. 1986;73:751–754.
- Villanueva T. Homeless families in England report high levels of depression. *BMJ*. 2004;328:1396.
- Pitcoff W, Pelletiere D, Crowley S, et al. *Out of Reach: America's Housing Wage Climbs*. Washington, DC: National Low Income Housing Coalition; 2003.
- Belle D, ed. *Lives in Stress: Women and Depression*. Beverly Hills, Calif: Sage Publications; 1982.
- Belle D, Doucet J. Poverty, inequality, and discrimination as sources of depression among US women. *Psychol Women Q*. 2003;27:101–113.
- Miranda J, Bruce ML. Gender issues and socially disadvantaged women. *Ment Health Serv Res*. 2002;4:249–253.
- Brown GW, Moran PM. Single mothers, poverty and depression. *Psychol Med*. 1997;27:21–33.
- Lynch J, Kaplan G, Shema S. Cumulative impact of sustained economic hardship on physical, cognitive, psychological, and social functioning. *N Engl J Med*. 1997;337:1889–1895.
- Link B, Phelan J. Social conditions as a fundamental cause of disease. *J Health Soc Behav*. 1995;35:80–94.
- Weinreb L, Goldberg R, Perloff J. The health characteristics and medical service use patterns of sheltered homeless and low-income housed mothers. *J Gen Intern Med*. 1998;13:389–397.
- Council on Scientific Affairs, American Medical Association. Violence against women. *JAMA*. 1992;267:3184–3189.
- Bassuk EL, Perloff JN, Garcia Coll C. The plight of extremely poor Puerto Rican and non-Hispanic white single mothers. *Soc Psychiatry Psychiatr Epidemiol*. 1998;33:326–336.
- Guarnaccia P, Good BJ, Kleinman A. A critical review of epidemiological studies of Puerto Rican mental health. *Am J Psychiatry*. 1990;147:1449–1456.
- Zima BT, Wells KB, Benjamin B, Duan N. Mental health problems among homeless mothers: relationship to service use and child mental health problems. *Arch Gen Psychiatry*. 1996;53:332–338.
- Mental Health: A Report of the Surgeon General. Washington, DC: US Dept of Health and Human Services; 1999.
- Beardslee W, Versage E, Wright E, et al. Examination of preventive interventions for families with depression: evidence of change. *Dev Psychopathol*. 1997;9:109–130.
- Goodman SH, Gotlib IH. Risk for psychopathology in the children of depressed mothers: a developmental model for understanding mechanisms of transmission. *Psychol Rev*. 1999;106:458–490.
- Bogard C, McConnell J, Gerstel N, Schwartz M. Homeless mothers and depression: misdirected policy. *J Health Soc Behav*. 1999;40:46–62.
- Rog D, McCombs-Thornton K, Gilbert-Mongelli A, Brito M, Holupka C. Implementation of homeless families program 2: characteristics, strengths, and needs of participant families. *Am J Orthopsychiatry*. 1995;65:514–528.
- Burt M, Aron L, Douglas T, Valente J, Lee E, Iwen B. *Homelessness: Programs and the People They Serve: Findings of the National Survey of Homeless Assistance Providers and Clients*. Washington, DC: Council of the Homeless; 1999.
- Shinn M, Weitzman BC, Stojanovic D, et al. Predictors of homelessness among families in New York City: from shelter request to housing stability. *Am J Public Health*. 1998;88:1651–1657.